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## (54) THERMOSTABLE DNA POLYMERASE AND ITS PRODUCTION

## (57)Abstract:

PURPOSE: To provide a new thermostable DNA polymerase useful for the analysis of gene base sequence and other genetic manipulation experiment and provide a process for the production of the enzyme.

CONSTITUTION: This thermostable DNA polymerase exhibits the following physical and chemical properties. (1) It has actions and substrate specificities to catalyze reaction for introducing complimentary deoxynucleoside 5'-monophosphate into deoxyribonucleic acid, require four kinds of deoxyribonucleoside 5'-triphosphates and exhibit sensitivity to dideoxythymidine 5'-triphosphate, (2) it is stable at 90° C for 30min at pH7.5, (3) the optimum temperature is about 80° C and (4) the optimum pH is about 8. The polymerase is produced by culturing a bacterial strain of the genus Pyrococcus.

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